Prof. Berndt Mueller
Duke University

"Understanding the Universe: How the Relativistic Heavy Ion Collider is helping us."

The existence of intelligent life in the universe is dependent on several amazing coincidences in the values of fundamental constants of nature. The most "natural" resolution of this paradox is the existence of many universes, in which the constants of nature have taken on different values, because they are characterized by different vacuum states. The Relativistic Heavy Ion Collider was designed and built to test the hypothesis that the vacuum state of the strong interactions, and with it the masses of quarks, can be experimentally modified. I will discuss some of the early results and insights from the RHIC program and how they relate to its overarching goal.

REFRESHMENTS AT 3:45 P.M.

For further information call Mark Reeves at 202-994-6279

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